DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-003649 Address: 333 Burma Road **Date Inspected:** 13-Aug-2008

City: Oakland, CA 94607

OSM Arrival Time: 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: C.M. Chen and Sun Wei **CWI Present:** Yes No **Inspected CWI report:** Yes No N/A **Rod Oven in Use:** Yes No N/A Yes N/A N/A **Electrode to specification:** No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** OBG

Summary of Items Observed:

Caltrans Quality Assurance (QA) Inspector Tim McClendon arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions. While on site the QA Inspector observed and/or discovered the following.

This Caltrans QA Inspector has been assigned to the ZPMC, ABF, Caltrans group tagging team performing the review of numerous QC and QA documents for the purpose of continuing with the on-going group tagging of the segments identified below.

This Caltrans QA Inspector is submitted a NDT request for the following Side Panels and Bottom Panels located at Segment 5AE which include the following.

SP423A 5AE

SP304A 5AE

SP331A 5AE

BP110A 5AE

BP56A 5AE

BP164A 5AE

SP601A 5AE

SP561A 5AE

SP521A 5AE

SP419A 5AE

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Bay 1 Sub Assembly Shop - QA Observations:

1) OBG-Deck Panel Welding-

Gantry 1- Caltrans QA Inspector observed ZPMC in the process of welding root pass (GMAW) OBG Deck Panels DP116-002.

ZPMC performed a portion of GMAW welding to closed U-rib production deck panel DP116-002 weld #7 independently due to a malfunction on weld head number 3. Specifically the GMAW wire failed to continue to feed at approximately mid-way through weld number 7. This start/stop was area was ground flush and ZPMC personal performed MT inspection and the GMAW welding was restarted after GMAW was completed on weld number 8. An incident report will be written on this issue.

- a) Caltrans QA Inspector observed ZPMC performing MT inspection on DP117-001. ZPMC MT inspector reveled 5 crack like liner indications on this 4 rib deck panel. A total of 208 tack welds are incorporated in this deck panel. ZPMC recorded a total of 3 crack like liner indications on deck panel DP116-002 with a total of 208 tacks incorporated on this deck panel.
- b) Gantry 2- This gantry is idle during this shift.
- 2) ZPMC Personnel- Caltrans QA observed ZPMC has approximately 30-45 workers performing various functions relative to the fabrication of the OBG Deck Panels. These functions include; closed rib press forming, drilling holes in connection areas, PJP bevel preparation, closed rib splice welding, closed rib diaphragm fit-up and FCAW welding of splices, closed rib to deck plate fit-up and tack welding and the PJP welding of closed ribs to deck plates.

North Fabrication Bay OBG Assemblies

OBG Assembly Segments 3BW- Caltrans QA observed this segment is idle on this date. There are no activities to report.

OBG Assembly Segments 3AW -ZPMC in the process of fitting up E7 side plate SP70-001

OBG Assembly Segments 4BW-Caltrans QA observed this segment is idle on this date. There are no activities to report.

OBG Assembly Segments 4AW - Caltrans QA observed this segment is idle on this date. There are no activities to report.

OBG Assembly Segments 5BW - Caltrans QA observed this segment is idle on this date. There are no activities to report.

OBG Assembly Segments 5AW- ZPMC performing weld preparation on D6 to E7 by preparing tack welds by grinding.

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South Fabrication Bay OBG Assemblies

OBG Assembly Segment 3AE- ZPMC welding the root side back-gouge at the CJP joining E7 side plate to FL3 B-side at SSD17A PP021.

OBG Assembly Segments 3BE-Caltrans QA observed this segment is idle on this date. There are no activities to report.

OBG Assembly Segments 4BE-ZPMC performing FCAW welding on Side Plate E7 to FL3 "A" side at SSD18 PP028

OBG Assembly Segments 4AE- Caltrans QA observed this segment is idle on this date. There are no activities to report.

Summary of Conversations:

No relevant conversations spoken on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady, Velasco 13816942685, who represents the Office of Structural Materials for your project.

Inspected By:	McClendon, Timothy	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer